

DETERMINANT FACTORS OF PRODUCT ATTRIBUTES TO CONSUMER BUYING BEHAVIOR OF MOTORCYCLES

by:

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ABSTRACT

Large number of people using motorcycles, makes companies and producers need to analyze and search more on the consumer buying behavior towards purchasing motorcycle. This will help the companies to make good decisions on what kinds of motorcycles that need to be produced. The company will have a step ahead in knowledge than others about the consumer needs and wants of a motorcycle because motorcycle industry is one of the fastest growing industry. The objective of this research is to know the factors of product attributes that influence consumer buying behavior of motorcycles in Manado. The population in this research are all the motorcycle owners in Manado with sample as many as 100 respondents. Factor Analysis Method were used to analyze the twenty variables in this research. The result and conclusions are from twenty variables observed, eighteen variables formed six factors that drive consumers to buy a motorcycle. Those factors are product, quality, trust, value, design, and usage. There are two variables that do not significantly influence consumers to buy motorcycles, namely : easy-to-use, and discount price.

Keywords: *consumer buying behavior, product attributes.*

INTRODUCTION

Research Background

The globalization era make a big change in Indonesia especially in consumer lifestyle. People with a lot of activities need to finish their work on time. To do that, they need something to help and support their work. The increasing number of people and in operation boost the occurrence of traffic jams. People look for ways to solve the problem and search for vehicles that are more accessible to reach places. The increasing demand of transportation increases sales in the automotive sector. Today, the motorcycle industry is one of the fastest growing industry in the automotive business in Indonesia.

Kompas (2013) stated that it is estimated that in 2011 there are about 69,204,675 units of motorcycle on the roads in Indonesia and this number increased in 2012 reaching 77,755,658 units of motorcycle. From this data, it can be seen that the development of motorcycle industry in Indonesia has increased around 12% in 2012 . According to the data found in Ditlantas Polri North Sulawesi 2013, in July 2013, 583,856 units of motorcycle were on the roads and it increased in August 2013, to 587,533 units of motorcycle.

Based on this situation, for the last few years, local brands have to build a strong image to compete with each other in the motorcycle industry of Indonesia. The increasing number of motorcycle sales shows a clear fact that the motorcycle market is growing and this attracts new comers to compete in this industry. With the large number of people buying and using the motorcycle, companies and producers need to analyze and search more on the consumer buying behavior towards purchasing motorcycle. This will help the companies make good decisions on what kind of motorcycle need to produced. The company will have a step ahead in knowledge than others about the consumer needs and wants of a motorcycle.

Research Objective

The objective of this research is to know the factors of product attributes that influence consumer buying behavior of motorcycles in Manado.

THEORITICAL FRAMEWORK**Theories****Consumer Buying Behavior**

Solomon, (2011:33) stated that consumer behavior covers a lot of ground: it is the study of the processes involved when individuals or group select, purchase, use, or dispose of products, services, ideas, or experiences to satisfy needs and desires. Laudon and Traver (2011:383) states consumer behavior is a social discipline that attempts to model and understand the behavior of humans in a marketplace. Consumer buying behavior is a study of how individuals make decision to spend their available resources (time, money, effort) on consumption related items (what it buy, why it buy, where it buy, how often it buy and use a product or service), especially the factors related to occupation so consumer behavior patterns are quite related to each other, specifically in the aspects like quality, pricing, and decision making (Kumar 2011:60). According to Pride, et al (2010:114) consumer buying behavior refers to the purchasing of products for personal or household use, not for business purposes.

Product Attributes

Product attributes as the characteristic or specifications about the product and service may or may not have and includes both intrinsic and extrinsic specifications (Gwin and Gwin, 2003). According to Kotler, et al. (2005:225) product attributes is the development of a product or service that involved in the determination of benefits that will be provide.

The Factors of Product Attributes**Price**

Case, et al., (2009:72) stated that a price is the amount that a product sells for per unit, and it reflects what society is willing to pay. Price is amount of money customers have to pay to obtain the product (Kotler, et al. 2005:45).

Brand

Brand is a name, term, sign, symbol, or design, or a combination of these, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors (Kotler, et al. 2005:227). Brand is a name, phrase, design, symbol, or some combination of these elements that identifies a company's services and differentiates it from competitors (Lovelock and Wirtz, 2011: 618).

Quality

Quality is defined as meeting, or exceeding, customer requirements now and in the future. (Schroeder, et al. 2011:159). According to Summers (2009:549), quality is characteristic of a product or service that bear on its ability to satisfy stated or implied needs.

Safety

Akhtar (2012) stated that safety is the state of being safe, the condition of being protected against physical, social, spiritual, financial, political, emotional, occupational, psychological, educational or other types or consequences of failure, damage, error, accidents, harm, or any other event which could be considered non-desirable.

Advertising

Advertising is any paid form of nonpersonal communication by a marketer to inform, educate, or persuade members of target audiences (Lovelock and Wirtz, 2011: 618). According to Kotler and Keller (2009:538) advertising is any paid form of nonpersonal presentation and promotion of ideas, goods, or services by an identified sponsor.

Discount Price

Discount price is a straight reduction in price on purchases during a stated period of time (Kotler, et al. 2005:G-3). Discounting is a strategy of reducing the price of an item below the normal level (Lovelock and Wirtz, 2011:619).

Efficiency

Efficiency refers to the ratio of useful energy delivered by a system to the energy supplied to it (Case, et al. 2009:46). Dyck and Neubert (2009:11) stated that efficiency refers to the level of output that is achieved with a given level of inputs.

Feature

A product can be offered with varying features and being the first producer to introduce a needed and valued new feature is one of the most effective ways to compete (Kotler, et al. 2005:226). According to Pride, et al (2012:359) product features are specific design characteristics that allow a product to perform certain tasks.

Easy-to-use

Usability is the ease of use and learnability of a human-made object (Rubin and Jeffrey, 2013). Usability also is the measure of a product's potential to accomplish the goals of the user (Rouse, 2005).

Usage

Keegan and Green (2011:594) stated that usage is an assessment of extent in which a person uses a product or service. Product usage characteristic are related to the amount of a product used (Kleindl, 2011:107).

Value

Value is the full set of experiences, including price, that an organization delivers to it is intended customers within a specific timeframe (Geffel, 2011). Value is the property or aggregate properties of a thing by which it is rendered useful or desirable, or the degree of such property or sum of properties ; worth ; excellence; utility; importance (Fessler and Loiseaux,2002).

Durable

Durable is last a relatively long time (Case, et al. 2009:452).

Reliability

Reliability refers to the length of time a product can be used before it fails (Schroeder, et al. 2011:160). Reliability is defined as the probability that a product or process will perform satisfactorily over a period of time under specified operating conditions (Shim and Siegel, 1999:131).

Product Variety

Variety is the quality or condition of being various or varied (Lightfoot, 2010). Product variety is the number of different types of products produced (or services rendered) by a firm (Kinney, 2013).

Design

Design is a larger concept of the appearance of a product (Kotler, et al. 2005:227). Sandhusen (2008:394) stated that design characteristic of tangible products, defined in terms of such intrinsic attributes as a taste, price, style, size, and color are conditioned mainly by customer preferences, costs, and compatibility.

Previous Usage Experience

Previous usage experience is the result of acquiring and processing stimulation over time (Solomon, 2011:649). Experience depends upon the perception of multiple sensory qualities of a design, interpreted through filters relating to contextual factors (Buxton, 2007:135).

Local Product

A local product is one that achieved success in a single national market and sometimes a global company creates local products and brands in an effort to cater to the needs and preferences of a particular country markets (Keegan and Green, 2011:333).

Manufacture's Credibility

Daugherty (2012:111) stated that credibility refers to the objective and subjective components of the believability of a source or message. Credibility is defined as the quality or power of inspiring belief (Osidele, 2002:33).

Store Location

Wrigley (1988) stated that in store location it is needed to make a store location analyses are required both to asses and improve the sales performance of existing stores and to examine the viability of potential new stores.

Support Service

Support service is any activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything (Kotler, et al. 2005:229). Support service usually referred to as customer services, these services include any human or mechanical efforts or activities a company provides that add value to a product (Pride, et al. 2012:274). According to Botha, et al. (2007:259) the support is target resellers and distributors, while in other instances the support may be aimed at the final consumer, or a combination of both.

Previous Research

Shimpi and Sinha (2012) found that texture of product, promised effects, previous usage experience and suitability influence on a product attributes for consumer buying behavior of male cosmetics in Pune City. Vani, et al. (2010) found that brand image, advertising, and offer play an important role in purchasing toothpaste in Bangalore City and in this research the product attribute also analyzed by the consumer for brand name, packaging availability, and price rise, etc. Prasad (2012) found that consumer's education, income, occupation, marital status are the major determinants for type of apparel retail format, the psychographic segments are differed in terms of consumer's activities, interests and opinions and values for the purchase of apparel products that is style, value, diversity, demand, credibility, concern, referral groups.

Price (X1), Brand (X2), Quality (X3), Safety (X4), Advertising (X5), Discount Price (X6), Efficiency (X7), Feature (X8), Easy-to-use (X9), Usage (X10), Value (X11), Durable (X12), Reliability (X13), Product Variety (X14), Design (X15), Previous Usage Experience (X16), Local Product (X17), Manufacture's Credibility (X18), Store Location (X19), Support Service (X20).

Consumer Buying
Behavior (Y)

Figure 1. Conceptual Framework

RESEARCH METHOD

Type of Research

This research is a causal type. Causal research is used to obtain evidence of cause-and-effect relationships between two or more variables (Hair, et al. 2010:118). According to Sekaran and Bougie (2009:110) causal study is a study in which the researcher wants to delineate the cause of one or more problems.

Place and Time of Research

The research took place in Manado, North Sulawesi. The research was conducted between June to July 2013.

Population and Sample

Population is the entire group of people, events, or things that the researcher desires to investigate (Sekaran and Bougie, 2009:262). According to Hair, et al. (2010:131) population is an identified group of elements of interest to the researcher and pertinent to the information problem. Population is the aggregate of all the elements, sharing some common set of characteristics, which comprise the universe for the purpose of the marketing research problem (Malhotra and Peterson, 2006:323). The population in this research, are all motorcycle owners in Manado. This research use random sampling method. This research takes 100 respondents as the source of primary data.

Data Collection Method

Primary data refer to information obtained first-hand by the researcher on the variables of interest for the specific purpose of the study Sekaran and Bougie (2009:180). According to Tull and Hawkins (1990:806) primary data is original data collected specifically for the problem at hand. Aaker, et al. (2004:761) stated that secondary data is data collected for some purpose. This research spread questionnaires to collect the primary data and attained data from Badan Pusat Statistik and Ditlantas Polri North Sulawesi 2013 as a secondary data.

Operational Definition and Measurement of Research Variables

Operational Definition of Research Variables

1. Price (X1), the amount of money that given for which something is bought or sold.
2. Brand (X2), a type of product and as identity of company that it offer in products and services to win the attention.
3. Quality (X3), the standard or excellence level of something.
4. Safety (X4), the condition of freedom and being protected where from danger, risk, or threat of harm, injury, or loss to personnel and/or property.
5. Advertising (X5), any paid form of nonpersonal presentation and promotion to persuade an audience to purchase the product or service.
6. Discount price (X6), reducing price of product or service during a stated period of time.
7. Efficiency (X7), competence in performance.
8. Feature (X8), an important part or aspect of something.
9. Easy-to-use (X9), straight forward and simple to use.
10. Usage (X10), the fact of being used.
11. Value (X11), a fair return or equivalent in goods, services, or money for something exchanged.
12. Durable (X12), able to exist for long time.
13. Reliability (X13), the quality of being reliable.
14. Product variety (X14), the quality or state of being different or diverse.
15. Design (X15), creative activity to show the look and function of a product or service.
16. Previous usage experience (X16), The result of using a product or service from the past experience.
17. Local product (X17), the production of goods and services for internal consumption in the producer country rather than for export.
18. Manufacture's credibility (X18), the capable of being believe from the customer to the manufacture.
19. Store location (X19), named geographical place that provides permanent facilities for movement of goods or is designated for a stated purpose.
20. Support service (X20), activity for successful completion of a program that give benefit for customer.

In the questionnaire to measure the research variables the Likert scale is used. According to Sekaran and Bougie (2009:152), Likert scale is designed to examine how strongly subjects agree or disagree with statements on a five-point scale, where 1= "strongly disagree", 2= "disagree", 3= "neither agree nor disagree", 4= "agree", 5= "strongly agree".

Data Analysis Method

Validity is the extent to which conclusions drawn from the experiment are true (Hair, et al. 2010:162). Measures of Sampling Adequacy in Anti-image Correlation is used to measured validity test. If MSA is more than 0.5 than the data is valid. According to (Sekaran and Bougie 2009:161), the reliability of a measure

indicates the extent to which it is without bias (error bias) and hence ensures consistent measurement across time and across the various items in the instrument. The reliability test in this research uses Alpha Cronbach. If Alpha Cronbach is less than 0.6 then it is not reliable so the score must be more than or equal 0.7, then the data is consistency and reliable.

Factor Analysis Method

Factor analysis is based on the fundamental assumption that some underlying factors, which are smaller number than the number of observed variables, are responsible for the covariation among the observed variables (Kim and Mueller, 1978:9). Factor analysis is most readily conceptualized as a multivariate multiple regression problem in which concerned with predicting scores on n observed criterion variables from scores on $m < n$ unobserved predictor variables (Yates, 1987:9). Tigert and Sheth (1960:5) stated that factor analysis simplifies a data matrix by summarizing each variable's variance in a small number of factors. According to Gorsuch (1983:2), the purpose in using factor analysis is scientific in the sense previously discussed.

RESULT AND DISCUSSION

Result

The MSA value that obtained from the calculation: price .525, brand .600, quality .692, safety .645, advertising .724, discount .528, efficiency .576, feature .586, easy-to-use .334, usage .511, value .611, durable .625, reliability .648), product variety .649, design .688, previous experience .666, local product .571, manufacture credibility .587, store location .688, and support service .577. With the MSA score that must be $>.50$ now it can be seen that the easy-to-use variable only got .334 which mean not fulfill the minimum score of $>.50$. From this situation it is required to retest the data without the easy-to-use variable. The result of reliability test it shows that Alpha Cronbach is .749. The consistency reliability of the measure used in this research can be considers as good and reliable because above the acceptance limit of .60.

Result of Factor Analysis

The number of KMO and Bartlett's Test is .640 with significant .000. After retesting again without easy-to-use variable because below .50, it is increase the number of total MSA from .610 become .640. There are nineteen variables that passed the validity test, but only eighteen of them formed as factors based on the rotated component matrix test. The remaining two variables were not included are: easy-to-use and discount price. The eighteen variables were grouped to six factors as the result of the analysis. Therefore from the data, the variable has been grouped to six factors as follows.

Table 1. Group of Factors

Factor	Variable	Factor Loadings
1	Advertising	.740
	Feature	.689
	Durable	.521
	Local product	.664
2	Brand	.812
	Quality	.730
	Safety	.659
3	Previous experience	.588
	Manufacture's credibility	.632
	Store location	.631
	Support service	.823
4	Price	-.635
	Value	.746
	Reliability	.503
5	Product variety	.717
	Design	.733
6	Efficiency	.782
	Usage	.691

Factor loading above means that the variables are important and influencing consumers to buy a motorcycle. The higher the value of factor loading, the stronger the relationship between the variable and the factor formed. In the first factor which consists of four variables, advertising has the highest factor loading, which means advertising is the strongest variable in factor one. In the second factor, brand has the highest factor loading which means that brand is the most important variable in second factor. In the third factor, support service is the highest factor loadings which means that support service is most important to the third factor.

Discussion

Product

In this factor there are advertising, feature, durable, and local product. Advertising is often considered as a very important tool if the company wants to be successful and make the product well-known in the market. The increasing competition of various products especially motorcycles, makes companies more aware to create advertising. The advertising is also connected with the feature of product. When company presents the motorcycle through the advertising, consumers can see the features that the motorcycle have and the features of the motorcycle it can be the distinct features that differs the company with its competitors. Features of a product also gives a positive value of the motorcycle because it creates a clear reason why people must to buy the motorcycle. People also look for the product that can stay longer. Therefore when they see different motorcycles with the newest advertising and features, they will choose to get the newest one than before. Products that are produced locally also becomes a consideration in buying motorcycles. People believe that local product offers affordable prices rather than other products.

Quality

In this factor there are brand, quality and safety. Brand in the term is often called as the name for a product. Brand is an identity that connects a promise of benefit offered by a product. Brand creates the identity of a product and differentiate the product from other products that can be identical or similar to those of other competitors. Brand that are chosen and appropriately is an important asset for most companies. It also becomes a valuable asset that the benefits are also influential in terms of advertising until the sale of a product. In addition, the other benefit is to add value to a product. The quality of a product is important and should be sought by the company if they want maximum results and allowing the company to compete in the market being even more superior than others to meet consumer desires. Quality also cannot be separated from the customer experience of a product. By looking at the condition, it can be said that product quality must be based on the desire of the consumer. So the quality of the product should be designed and controlled the products made will suit the desired and expected attributes of the customers to increase the satisfaction which will further improve the product. The quality of motorcycle is related also with the safety. Safety on motorcycles can be seen from various parts. Therefore companies must carefully think about the features that should be developed in order to improve the safety of the motorcycle, so that owners may feel more secure when using the motorcycles.

Trust

In this factor there are previous experience, manufacture credibility, store location, and support service. Previous user experiences affect the level of trust of prospective customers or consumers to a product. Many companies have less concern about the experiences of the users or the motorcyclists. Users can be asked about the motorcycle experience, their feelings and perception of the brand. Previous experiences about products will make consumers feel there is a strong relationship with the brand and will create a loyal relationship between consumers and the brand. The credibility of the company can be said as the company's belief. The credibility of a company become a strong foundation of a successful company's leadership in the market. The credibility of company is established and built by hard work and not just once or twice in winning the market. Credibility of the company is not limited by time because the company will require constant effort consistently throughout the company's existence. To sell the motorcycle the company need a store location. People believed that store location affects the consumer buying behavior of motorcycle. The existence of a strategic location is one of the factors that influence and determine the success of marketing a business. The more strategic the business location is, it will affect to the higher level of sales and also the success of the business. When motorcycles are sold to market what they need next is a place to maintain the motorcycle if it encounters a problem. Excellence

and good service will increase the customer loyalty. Therefore in order to gain customer loyalty, the company should be able to serve its customers, especially through better services for the products it offers. With regular service either free or paid, and replacement of spare parts on time, it will give benefit to the owner of the motorcycle. The most important thing is that the owner of a motorcycle can easily find motorcycle servicing in accordance with its brand.

Value

For this factor there are price, value, and reliability. Price are formed to meet the goals of the two parties; producers and consumers. Producers see price as the value of goods that can provide benefits higher than the cost of production, while consumers see price as the value of goods that can provide the fulfillment of the needs of consumers. Prices that are set too low can make a company lose extra revenue that could be obtained if the target consumers are able to spend more to buy the product. The prices that are set too high can also affect sales of the products because many consumers will be less interested to buy expensive products. Therefore the price should be carefully given that it will decrease the percentage of consumers turning to other products. A value is a result of customers who have been getting and using a company's products. Companies should be able to explain what value of uniqueness its products offer. After identifying the uniqueness of products, the company must relate it with what is needed by consumers to make the company produce a good value. Reliability is a product attribute that consists of various components that remain and perform according to its specifications. Reliability is something to be considered when buying and using products such as motorcycles. Consumers must think carefully when deciding to buy the product that are good and reliable so that it will not disappoint consumers, especially the motorcycles are considered as luxury goods which are not cheap so the consumers must be careful in deciding to buy products such as motorcycles. The research about the reliability of product shows that it will produce more effective in performance of specification so consumers may easily assess which motorcycle are suitable and reliable to use.

Product Variety

For this factor there are product variety and design. A motorcycle has a lot of unique components that connect as one part. The components of the motorcycle itself consists of the engine, wheels, structures, and others. Variants are needed for many motorcycles because it is important that consumers may see in details what are required for motorcycles and consumers can enlarge their creativity of designing the motorcycle in accordance with what they want. Product variants here do not only have an impact on companies and consumers but also sellers who provide additional accessories for a motorcycle and it brings benefits to all sectors. People think that design is important to make them want to buy a motorcycle. The design consists of a variety of good ideas from the specification, performance, and even aesthetic. Consumers see the importance of design from this type of product like motorcycles that make them interested consumers with its design. Successful design will have an impact on almost all important factors that will make the company successful. Consumers assume there is an extra value of companies that may guarantee a defective product by providing services for the products to reduce motorcycle losses and ultimately improve the satisfaction customers. The product design for motorcycles are very important because of the increasing number in competition of motorcycle manufacturers that make companies must increase their creativity and innovation to make their product different with the others.

Usage

In this factor there are efficiency and usage. The efficiency of a product is needed especially in motorcycles. Consumers choose motorcycles because it provides more efficiency in the time of in traffic jam today. This make their work slower, so the motorcycle can be an efficient transportation used in order make quicker mobility for consumers. The efficiency are also useful in the use of gasoline, where the motorcycle is more efficient in fuel consumption than cars, therefore motorcycle owners can reduce costs for gasoline. Efficiency also relates with the buying the motorcycle itself. It is almost the same as the usage of the motorcycle because when people decided to buy a motorcycle it means that know exactly how the motorcycle is used and consumers want to buy because of the usage of the product for daily activities.

CONCLUSION AND RECOMMENDATION

Conclusion

The six factor that influence consumers to buy motorcycles in Manado are (1) product; it describing that consumers really pay attention to the product attributes that make them interested to buy a motorcycle. (2) quality; So the company must manage and make the brand more familiar to customers up to the safety of the motorcycle itself (3) trust; Customer trust is important when they buy a motorcycle, from the previous usage experience customers already know the motorcycle and about the manufacture's credibility to attract customers and from the store location that helps the support service which are easy to find making it easy to reach by customers (4) value; customers think when they buy a motorcycle it must be equal with the value that they get from the purchase (5) design; companies need to improve the product variety in order to make new customers attracted to the motorcycle and (6) usage; customer would have known about the efficiency of using it so company must manufacture motorcycle that are efficient in use. There are two variables that do not significantly influences motorcycle owners, the variables are easy-to-use and discount price.

Recommendation

(1) Product; Because the product factor influence positively, the firm must pay attention to the variables that are included in this factor which are advertising, feature, durable and local product (2) quality; Because the quality factor influence the consumer buying behavior of motorcycle that consist of brand, quality and safety, the firm must pay attention to increase the quality factor to gain more consumers (3) trust; . If this factor is increased then the performance of the company will be improved. (4) value; The firm must set the price correctly for the motorcycle and before setting the price, the firm must research the best price for consumers (5) design; the firm must pay attention and increase the creativity and innovation of the employees in creating great motorcycle to attract consumers and increase sales (6) usage; the firm must pay attention when producing the motorcycle that is efficient and has a good function to increase the sales and gain more consumers.

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